

Amended Claims (Article 34)

What is claimed is:

1. (amended) A method for differentiating mesenchymal stem cells into steroid hormone-producing cells, comprising stimulating the mesenchymal stem cells by a transcriptional factor (SF-1).
2. A method of claim 1 comprising further stimulating the mesenchymal stem cells by cAMP.
3. A method of claim 1 or 2, wherein the mesenchymal stem cells are derived from bone marrow.
4. A method of claim 3, wherein the mesenchymal cells are derived from human.
5. A method for producing steroid hormone-producing cells, comprising implementing the method of any one of claims 1 to 4 *in vitro*.
6. A method for producing steroid hormone-producing cells, comprising implementing the method of any one of claims 1 to 4 by transplanting the mesenchymal stem cells into a mammalian reproductive organ.
7. (deleted)
8. (amended) A method for producing steroid hormone, comprising culturing the steroid hormone-producing cells obtained by the method of claim 5 or 6 and recovering steroid hormone from the culture medium.
9. The method of claim 8, wherein said steroid hormones are progestin, androgen, estrogen, glucocorticoid or mineralcorticoid.
10. (amended) Non-human animals carrying the steroid-producing cells obtained by the method of claim 5 or 6.